CLAIMS

We claim:

1. In a communication system providing voice services and data services and further providing a scan mode, a method for facilitating data reception comprising the steps of:

determining if a mobile station is in scan mode;

when the mobile station is in scan mode, sending a data message using a preamble; and

when the mobile station is not in scan mode, sending the data message without using the preamble.

2. The method of claim 1, wherein the step of determining if a mobile station is in scan mode comprises receiving a message from the mobile station indicating that the mobile station is in scan mode.

3. The method of claim 1, wherein the step of sending the data message using a preamble comprises the steps of:

sending the preamble; and

receiving an acknowledgement to the preamble.

4. The method of claim 3, further comprising, following the step of receiving an acknowledgement to the preamble, the step of sending a data message to the mobile station.

5. The method of claim 4, wherein the step of sending a data message comprises the steps of:

sending a first data message; and

sending a second data message without a preamble within a predetermined time period of sending the first data message.

6. The method of claim 5, wherein the predetermined time period corresponds to a reply time.

7. The method of claim 1, wherein the preamble comprises a preamble list.

8. The method of claim 7, wherein the preamble list contains an identification associated with the mobile station.

9. The method of claim 8, wherein the preamble list contains an identification associated with a second mobile station.

10. The method of claim 1, wherein the preamble comprises a plurality of short confirmed message packets.

11. The method of claim 1, wherein the preamble has a duration and wherein the duration is greater than or equal to a scan cycle duration for the mobile station.

12. The method of claim 1, wherein the data message comprises a plurality of data packets and the step of sending the data message comprises inserting a short confirmed message packet between each of the plurality of data packets.

13. The method of claim 12, wherein the plurality of data packets are directed to multiple mobile stations and wherein each short confirmed message packet comprises an identification associated with each of the multiple mobile stations.

14. The method of claim 1, further comprising the steps of:

determining the mobile station to be in a priority scan mode;

receiving an acknowledgement to the preamble; and
pausing before sending the data message.

15. In a communication system providing voice services and data services and further providing a scan mode, a method for receiving data messages comprising the steps of:

sending to a data controller an in scan mode message;

scanning a plurality of channels;

detecting a data message on a scanned channel;

determining a data message type;

processing the data message;

waiting a predetermined period of time; and

resuming scanning of the plurality of channels.

16. The method of claim 15, wherein the data message type is a preamble list, and the step of processing the data message comprises the step of detecting a mobile station identification on the preamble list.

17. The method of claim 16, further comprising, upon detecting the mobile station identification, the step of sending an acknowledgement to the data controller.

18. The method of claim 17, further comprising enabling a priority scan substantially immediately after the step of sending an acknowledgment.

19. The method of claim 15, further comprising, during the step of waiting a predetermined time period, detecting a second data message.

20. In a communication system providing voice services and data services to a mobile station operating within the communication system via a base station, an apparatus for providing a scan mode comprising:

a data controller coupled to send a preamble and a data message to the mobile and to receive an in-scan mode message and an acknowledgment message from the mobile via the base station, the data controller including a scan mode database and being operable to generate the preamble, and wherein

with the mobile station in scan mode as determined by the data controller with reference to an entry in the scan mode database, the data controller sends the preamble message to the mobile station, receives from the mobile station the acknowledgment and sends the data message to the mobile.

21, The apparatus of claim 20, wherein the preamble comprises a preamble list containing an identification associated with the mobile station.

22. The apparatus of claim 21, wherein the preamble list contains an identification associated with at least one other mobile station.

23. The apparatus of claim 20, wherein the data controller further comprises a timer operable to provide a time-out indication relative to the acknowledgment, and wherein, prior to the time-out indication, the data controller is further operable to send a second data message to the mobile station.

24. The apparatus of claim 20, wherein the data controller is further coupled to send a second data message to a second mobile station via the base station.

25. The apparatus of claim 24, wherein the second data message comprises a shortened preamble.

26. The apparatus of claim 25, wherein the shortened preamble comprises a short confirmed message packet.

27. The apparatus of claim 20, wherein the preamble comprises a plurality of short confirmed message packets.